# $\underline{\mathbf{EXHIBIT}\;\mathbf{6}}$

# In the Matter Of:

# DARRYL HOWARD vs CITY OF DURHAM

1:17-cv-00477-TDS-JEP

# **MEGHAN E. CLEMENT**

September 10, 2019



1	UNITED STATES DISTRICT COURT MIDDLE DISTRICT OF NORTH CAROLINA
2	1:17-cv-00477-TDS-JEP
3	DARRYL HOWARD,
4	Plaintiff,
5	VS.
6	CITY OF DURHAM; DARRELL DOWDY, in his individual and official
7	capacities; E.E. SARVIS, in his individual and official capacities;
8	MICHELE SOUCIE, in her individual and official capacities; SCOTT
9	PENNICA, in his individual and official capacities; MILTON SMITH,
10	in his individual and official capacities; AND other AS-YET-
11	UNKNOWN JOHN AND JANE DOE OFFICERS & SUPERVISORS 1-10, in their
12	individual and official capacities,
13	Defendants.
14	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
15	
16	DEPOSITION OF
17	MEGHAN E. CLEMENT
18	
19	September 10, 2019
20	10:18 a.m.
21	
22	Poyner Spruill LLP
23	301 Fayetteville Street, Suite 1900 Raleigh, North Carolina 27601
24	Christy Johnson, Notary Public No. 201903900055
25	



- They talk about sperm heads or sperm cells. There's very little talk specifically about intact sperm, so mostly it's based on my experience and -- yes.
  - Q. Okay. Now there are two different things that you reference here, the top sentence, under ordinary circumstances you refer to the time period following deposit?
    - A. Yes.

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- Q. And then the sentence below or at the bottom there you refer to the time prior to death.
  - A. Right.
- Q. Do I understand correctly that the degradation of sperm stops or slows when a person dies?
- A. It does because their activity usually -well, it -- degradation will still continue to go
  on, but other circumstances will generally preserve
  the sperm in -- in a body that is dead because
  they're not up walking around, they're not
  urinating, they're not wiping themselves, they're
  not -- so all of the physical activities of a live
  victim would increase that -- the -- the
  disappearance of intact sperm.
- Q. Okay. So -- so the appropriate time to -- more appropriate time to kind of determine when this



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sperm was deposited or to -- to surmise when this
sperm was deposited is looking at it from the time
of her death?

MS. HOFFMAN: Objection.

- Q. (Mr. Stevens) Correct?
- A. Can you -- can you repeat that?
- Q. If you are try -- when -- when trying to determine when the sperm was deposited in Nishonda Washington, the appropriate time to calculate from would be from the time of her death and move forward from there, correct?

MS. HOFFMAN: Objection.

- A. I'm trying to make sure I understand what you're saying. I think, yes.
- Q. (Mr. Stevens) I -- I mean, what you said there is that you -- you base your opinion upon a period of time prior to the time of her death?
  - A. Correct.
  - O. Okay. And that was a considered decision?
  - A. Correct.
- Q. Right. And so you would count back from whatever time it's determined that she died and, in your view, based upon your personal experience of examining these materials, you think it would have been deposited some 18 to 20 hours prior to that?



A. Yes.

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- Q. It appears that there was a sealed Ziploc bag that had both the red and purple tubes with liquid blood that was part of that -- that was part of what was gathered and looked at by the SBI. Is that correct?
  - A. Yes.
- Q. Okay. And it appears that they kept stains from purple and a red-topped tube in a -- in a freezer.
- A. Yes. Stains were made, yes. And then the stains, yes, were kept.
- Q. And then it looks like they examined the two vaginal smear slides.
- A. Yes.
- Q. And they found no sperm and moderate epithelials?
  - A. Correct. That's a documentation.
- Q. Okay. And then they determined that the swabs were bloody and dry.
  - A. Correct.
- Q. And I guess that's consistent with the finding of the blood-tinged fluid from the autopsy.
- 24 A. Yes.
- 25 Q. And then I take it they did conduct the



1 acid phosphatase test because they didn't find
2 sperm.

- A. Apparently, yes.
- Q. Or the finding of sperm was what led them not to bother with Nishonda, correct?
  - A. Correct.

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- Q. Okay. So they conducted the test for Nishonda and it was negative, correct?
  - A. This is Doris.

MS. HOFFMAN: Object ---

- 11 Q. (Mr. Stevens) I'm sorry --12 MS. HOFFMAN: --- Objection.
- 13 Q. (Mr. Stevens) --- for Doris.
- A. Yes. It does say, "Swab," and it looks like it has a negative.
- 16 Q. Okay. What does that signify?
- 17 A. That the acid phosphatase presumptive test 18 was negative.
- 19 Q. And what does that mean?
  - A. It means that they did not observe acid phosphatase.
  - Q. Okay. And what is the significance of that?
- A. That there was not -- that component of semen wasn't identified, was not there.



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- 1 Q. Is -- what is acid phosphatase again?
  - A. Acid phosphatase is an enzyme which is found in various body fluids, but it's found in higher concentrations in seminal fluid than other body fluids.
  - Q. Is that an enzyme that breaks down over time?
    - A. Sure. Yes.
  - Q. So are you less likely to find acid phosphatase the -- the longer from the time -- the period in which the sex occurred than more recently?
  - A. Certainly it will break down with time and depending on the environment. So if it remains wet, in a warm and wet environment, it will break down more readily than if it's, say, deposited on an article of clothing.
  - Q. And in this case, it's in a wet -- it was in a wet environment because it came from a vaginal swab, correct?
    - A. Correct.
  - Q. Which means it would break down more slowly?
    - A. No. It would break down more readily.
- Q. Quickly.
- 25 A. Yes.



Q. How long after sex occurs can one find -- can one have an acid phosphatase positive result from a vaginal smear or swab?

MS. HOFFMAN: Objection.

- A. It can be found hours. I mean, probably it used to be that if somebody was reporting a
  sexual assault that had occurred more than 24 hours
  previous, they wouldn't even bother collecting it
  because they wouldn't find evidence, typically, of
  any sexual assault activity. So generally, that was
  pretty much the outside, although often times the
  acid phos could potentially even not be detected
  again, prep -- maybe 20 -- 18 to 20 hour range, it's
  possible.
  - Q. (Mr. Stevens) Okay.
- A. It depends on activity. It depend -- I -- I mean there's so many variables. You know, if somebody's on -- menstruating, you know, that blood is going to be washing away the acid phosphatase, so you'd be more likely to find it on clothing than you would from a swab collected. So there's a lot of variabilities. But yes, it will degrade over time and if not collected within a fairly short period of time, less than a day, there's a chance -- a good chance you won't see it.



1 Q. Is it fair to say that sperm will last in 2 the vagina and can be able to be found longer than 3 acid phosphatase, as a general rule? 4 Yes. Generally you will have the ability 5 to detect sperm heads longer than you would acid 6 phosphatase. 7 Okay. All right. We'll come back to Q. 8 that. Going on to the next page -- sorry? 9 MS. HOFFMAN: I'm sorry. I couldn't hear that for some reason. 10 11 (Mr. Stevens) Okay. We're going on to 0. 12 the next page. They -- there was a microscopic 13 review of the -- the rectal smear slabs for Doris 14 Washington and they did not find sperm and they 15 found -- what is it? It says, a ---16 Α. A few ------ a few ---17 Q. 18 A. --- to light. 19 Few to light epithelials. Ο. 20 Α. Epithelial cells and also no fecal debris 21 and there was -- basically it's a poor smear.

it's -- there's very -- there's no much material on

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would be hard to find sperm even if it was there?

Does that mean it was -- it was -- it

Generally with poor smear it means

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- Q. Okay. And again, the -- the acid phosphatase test was negative.
  - A. Correct.
- Q. And then there were -- there was an examination of the oral smear slides and the same thing, no sperm found and light epithelials.
  - A. Correct. And light other cells.
- Q. What would that -- what would the other cells be?
- A. Potential yeast, fecal cell -- oh, no. Not fecal. This is just the oral. It could be yeast. It could be just other cell debris.
- Q. So the -- the ultimate determination of the SBI was that there was no semen or sperm found anywhere in Doris's rape kit, correct?
- A. Correct. From the smears.
  - Q. Right. And from the swabs, they were unable to find any -- the presence of any semen.
  - A. Correct. They tested it for acid phosphatase and it was negative.
  - Q. Okay. So the autopsy and the lab were consistent that, basically there was no male DNA found on Doris, correct?
    - A. On the ---



1	MS. HOFFMAN: Objection.
2	A. On the smears, correct.
3	Q. (Mr. Stevens) And no semen found on the
4	swabs.
5	A. Correct. No acid phosphatase.
6	Q. Okay. Which was the test that they knew
7	how to do to for the to detect the presence of
8	semen.
9	A. The yeah, the presumptive test.
10	Q. Okay. But then when you conducted testing
11	many years later, you did find some DNA, correct?
12	A. Yes, that's correct. Only on the vaginal
13	swabs.
14	Q. Okay.
15	A. Well, we found DNA on the swabs, but we
16	found male DNA on the vaginal swabs.
17	Q. Okay. Did it surprise you to find that
18	when when nothing had been found earlier?
19	A. No.
20	Q. And why is that?
21	A. Because when you're looking at a smear,
22	it's such a small portion of the overall sample
23	versus when you're actually taking the swab material
24	itself and extracting from that particular sample.
5	So when you're using the swah to collect the sample



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and then smearing it on a slide, you're relying on those cells basically forming off the swab and onto the slide, and then relying on someone visualizing it on the smear itself. There's a lot more material on the swab itself ---

- Q. Okay.
- A. --- that is available for testing.
- Q. Okay. Did you conduct a microscopic examination of Doris's smears?
  - A. I did not.
    - Q. And why not?
- A. I don't believe there was a question about whether there was sperm on there and you know what, now that you ask me that question, the microscopic exam I -- that I -- that I remember doing was on the microscope from the ME's office because I didn't look at any of these original smears.
  - Q. So you're saying ---
  - A. I did not ---
- Q. --- there's a microscope exam -- a microscopic examination you did of the Nishonda smears?
- A. Wait a minute. Let me think about that.

  Because they scraped 100 percent of them and

  analyzed it, so it would have been the smear from



1	A. Yes.
2	MS. HOFFMAN: Objection.
3	Q. (Mr. Stevens) There were not intact
4	spermatozoa noted for the Doris samples or swabs or
5	smears, correct?
6	A. That's correct.
7	Q. Is it fair to say that the the DNA that
8	was found in Doris could have been contributed up to
9	three to four days earlier at least?
10	MS. HOFFMAN: I'm sorry. I couldn't
11	hear. Could you say that again?
12	Q. (Mr. Stevens) Is it fair to say that the
13	DNA found in the Doris sample could have been
14	contributed as much as three to four days earlier?
15	MS. HOFFMAN: Objection.
16	A. I wouldn't expect three to four days
17	earlier simply because we did obtain a full a
18	fairly full profile. I would in my experience,
19	it was rare. I don't know that I've ever seen a
20	profile like this in a sample that was collected
21	three days after a sexual assault. I can't recall
22	of a single instance where that's been the case.



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don't know that I've ever found any profile in

somebody that had a sexual assault kit collected

My personal experience has been that I

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three days after a sexual assault -- or profile -- obtained a profile like in anybody that had a sexual assault kit collected three days after the occurrence.

Can I say it's impossible? No. I can't say anything is impossible. But I have not experienced a profile like this in something three to four days old.

- Q. Have you experienced a profile like this in something two days?
  - A. I would say maybe two days at the outside.
- Q. Okay. And again, this is based on your personal experience?
  - A. Yes.
  - Q. Okay. Is a ---
- A. Oh, and -- and that -- that is from, you know, a situation where it's a live victim who's reporting this with -- you know, we had consensual sex two days ago -- or we had, excuse me -- I was raped two days ago and is going to have a kit collected for the first time.
- It -- it is not very common to see these types. In -- in this, you have an injury in the vaginal vault that is diluting the DNA. And so, in somebody with -- with the blood that is being



- deposited, it's going to be diluting anything that is there even more. So in this, I would think it would be more recent than two days.
  - Q. So on the one hand, let's -- let's assume that whatever the injury in the vagina that caused the blood to be there was something -- that would have been something that happened contemporaneously with the murder, most likely, correct?
- A. Yes.

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- Q. Because of the blood-tinged fluid?
- A. Well, nobody's going to allow a sharp instrument to be ---
- 13 Q. Okay.
- A. --- inserted. But there's definitely blood in the vaginal vault area.
  - Q. Right. But about -- so somewhat contemporaneously with there being blood in the vaginal vault area ---
- 19 A. Yes.
- 20 Q. --- Doris Washington died, we assume, 21 correct?
- MR. BANNON: I'm sorry. I didn't hear that question. Would you mind saying that again?
- Q. (Mr. Stevens) We're assuming that



- 1 somewhat -- that she died somewhat contemporaneously
  2 with this incision, correct?
  - A. The -- yes.

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- Q. Okay. And I think we discussed before that some of the processes that break down DNA slow down or cease with death, correct?
- A. It continues to, but the activity that would normally happen with a live person prevents the loss because of the inactivity. But it doesn't stop the degradation.
- Q. But -- so what we have with Doris
  Washington is a situation in which the medical
  examiner viewed stained slides and did not find any
  sperm on any of the samples, correct?
  - A. Correct.
- Q. There was acid phosphalase -- phosphatase present ---
- A. AP.
  - Q. AP testing conducted that was negative ---
  - A. Correct.
- Q. --- correct? And there was -- the positive DNA result you got came from a vaginal swab.
- 24 A. Correct.
- Q. And typically DNA can -- I mean, that's a



- more hospitable environment for DNA than -- than the

  other, you know, either rectal or oral swabs,

  correct?
  - A. More so than the rectal, absolutely.

    Oral, you just have a constant flushing and so usually you don't see it in the oral cavity as long as you would a vaginal cavity.
  - Q. Okay. Are you familiar with any materials regarding best practices for connect -- collecting sexual assault case?
  - A. Am I fam -- I -- I'm sure there are some other there. I don't collect kits, so I have not reviewed any of them.
  - Q. Do you know or have any understanding of how long after a rape or sexual assault -- sexual assault nurses are instructed or told that they can collect rape kits?
    - A. Today?
  - Q. Yes.

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- A. Today, I know that they're in transition. Previously it had been 72 hours, but I believe they're in the process of changing that for up to five days.
- Q. Okay. And are you familiar with any of the studies that -- that provide, sort of, peer



- review -- peer reviewed reporting regarding how long
  sperm and/or DNA can remain and be found, you know,
  after -- after an assault or rape?
  - A. I -- I've read some literature. I -- I'm certainly not going to say I've read all of it, but certainly I have read some literature and I know that there has been literature, yes, that talks about it being recovered three to five days and I believe there's one that maybe had even gone up to seven. But I don't know all of the circumstances behind those.
    - Q. Okay.

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- A. And again, that's for today's technology.
- Q. And you're saying today's technology is more sensitive than that from when you conducted your analysis in 2010?
- A. Yes.
- Q. Do you know what the standard would have been in 2010?
- A. In 2010, I believe -- I think it was three days that they would have collected the sexual assault kits up to three days afterwards.
- Q. It's certainly possible that Jermeck Jones had sex with Doris Washington three days before she was murdered and you still found the results that



1 | you did in your testing, isn't it?

- A. Anything's possible, yes.
- Q. But it's more than just a theoretical possibility. I mean it -- that could have happened, correct?
- A. It's rare that this type of profile, using this technology in 2010, would have resulted in a profile for a sexual assault that occurred three days prior.
- Q. Okay.

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- A. Again, I can't say it's impossible, but it...
  - Q. Okay. And what does it tell you about when Jermeck Jones had sex with Doris Washington, that the -- the AP testing came out negative?
  - A. Nothing. There are some people who are very low -- males who have low concentrations of AP. The fact that there was blood could have caused a negative reaction with the AP. The fire and high concentrations of heat could have caused the breakdown of AP. So really the lack of AP doesn't necessarily say anything about timing because of the external factors.
  - Q. What percentage of rape kits or, you know, materials that you have tested, in which there were



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- -- it was AP testing done, have -- have involved negative tests when someone had sex with a victim or assaulted the victim 12 hours or less before the event?
- A. I'm sorry. Can you ask that again?

  MR. BRANNON: I'm the same. I was hoping you'd say that.
- Q. (Mr. Stevens) When you have reviewed materials from sexual assault kits, when you were aware that the sex had occurred at least 12 hours or less before the event and there was AP testing done, about what percentage of the time did that AP testing come out negative?
- A. Typically the only time we would see AP tests come out negative is -- is if the woman was menstruating.
  - Q. Okay.
- A. But within 12 hours, generally we would see a positive AP test.
- Q. So normally you would see a positive AP test unless the woman is menstruating. And then, would you automatically -- if she was menstruating, would you automatically not see it or would it just be less likely?
  - A. Those were the situations where I would



- not see it. It doesn't mean that it always wasn't seen. Sometimes you would still see it.
  - Q. Okay.

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- A. It was just a case-by-case basis.
- Q. But it's fair to say that the majority of the time, when you are examining something, materials that had been donated within the past 12 hours of the time that the, you know, the -- either of death or the collection of the materials, you would find the positive AP test.
  - A. Generally, yes, you would see the AP test.
- Q. Okay. So if Doris Washington was not menstruating at the time, the odds are that Jermeck Jones had sex with her more than 12 hours before she died?
  - A. I -- I can't --MS. HOFFMAN: Objection.
- A. --- say that. I'm sorry. I -- I can't say that.
  - Q. (Mr. Stevens) Okay. Why not?
  - A. Because there was -- even though she wasn't menstruating, there was still blood in her vaginal vault, so I don't know what effect that may have had on the acid phosphatase, if any.
    - Q. Okay. Is it fair to say that the negative



1	AP test is suggestive of of a sexual activity
2	that occurred more than 12 hours before Doris
3	Washington died?
4	MS. HOFFMAN: Objection.
5	A. It it certainly could.
6	Q. (Mr. Stevens) Okay. Is it fair to say
7	that it's suggestive of sexual activity that
8	occurred more than 15 hours before she died?
9	MS. HOFFMAN: Objection.
LO	A. I mean, any of these possibilities could
11	indicate. However, it's not I mean, I can't
12	clearly say it does or it doesn't.
13	Q. (Mr. Stevens) Why don't we take a break
L 4	for a couple minutes. I need to look at some notes
15	for a minute. I don't have that much more.
16	(Off record: 2:03 p.m. to 2:06 p.m.)
17	Q. (Mr. Stevens) Back on the record. Thank
18	you for your patience, Ms. Clement. The torture
19	will end shortly.
20	Is it fair to say that the scientific
21	opinions that you have to express were primarily set
22	forth in your certificate of analysis in Exhibit D?
23	A. That my sci I'm sorry. That my



Q. The ---

scientific ---

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